10/099,781 March 14, 2002

AMENDMENTS TO CLAIMS AND PENDING CLAIMS

Please cancel Claims 23-88 without prejudice.

Please amend Claims 2, 3, 5 and 6 as follows:

1. (Original) A chemical compound of Chemical Formula I:

Chemical Formula 1

wherein R1 through R24 are substituent groups, identical or different, and wherein not all of R1 through R24 are hydrogen.

- 2. (Currently Amended) The chemical compound of Claim 1, wherein one or more of R1-R24 are selected from the aryl group consisting of phenyl, biphenyl, terphenyl, benzyl, naphthyl, anthracenyl, tetracenyl, pentacenyl, perylenyl, coronenyl, and heteroaryl, which are either substituted or unsubstituted.
- 3. (Currently Amended) The chemical compound of Claim 2, wherein the aryl groups are further substituted with one or more phenyl, biphenyl, terphenyl, benzyl, naphthyl, anthracenyl, tetracenyl, pentacenyl, perylenyl, coronenyl or heteroaryl, which are either substituted or unsubstituted.
- 4. (Original) The chemical compound of Claim 1, wherein one or more of the R1-R24 are selected from the heteroaryl group consisting of thiophenyl, thiazolyl, oxazolyl, imidazolyl, and pyrazinyl, either substituted or unsubstituted.
- 5. (Currently Amended) The chemical compound of Claim 1, wherein one or more of R1-R24 are selected from the group consisting of amines with at least one aryl substituent and aryl including phenyl, biphenyl, terphenyl, benzyl, naphthyl, anthracenyl, tetracenyl, pentacenyl,

10/099,781 March 14, 2002

perylenyl, coronenyl and heteroaryl.

6. (Currently Amended) The chemical compound of Claim 1, wherein at least one of R1-R24 is anthracenyle or heteroaryl.

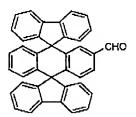
7. (Original) The chemical compound of Claim 1, wherein the substituent groups R1 through R24 can be substituted by one or more organic moieties satisfying General Formula I.

8. (Original) The chemical compound of Claim 1, wherein one or more of the R3, R7, R10, R11, R14, R15, R18, and R22 are substituted with non-hydrogen substituent groups.

9. (Original) The chemical compound of Claim 1, wherein one or more pairs of R3 and R7; R18 and R22; R10 and R15; and R11 and R14 are substituted with non-hydrogen substituent groups.

10. (Original) The chemical compound of Claim 1, wherein the compound is selected from the group consisting of Chemical Compounds 1-11, 100-137, 200-222, 300-308, and 400-413 as shown below, and wherein "Br" in Chemical Compounds 1, 2 and 5-7 may be substituted with another leaving group:

Chemical Compound 1

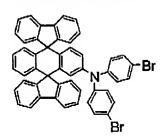


Chemical Compound 3

Chemical Compound 2

Chemical Compound 4

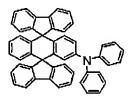
10/099,781 March 14, 2002 \bigcirc



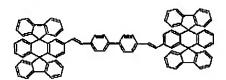
Chemical Compound 7



Chemical Compound 9

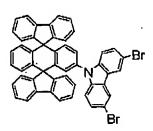


Chemical Compound 11

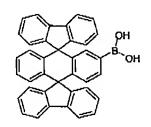


Chemical Compound 100





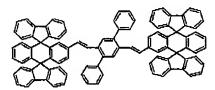
Chemical Compound 6



Chemical Compound 8



Chemical Compound 10

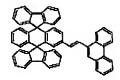


Chemical Compound 101

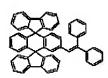


March 14, 2002

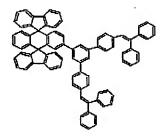
Chemical Compound 102



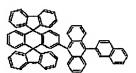
Chemical Compound 104



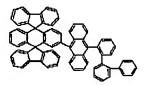
Chemical Compound 106



Chemical Compound 108



Chemical Compound 110

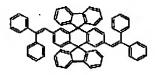


Chemical Compound 112

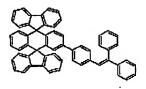


Chemical Compound 114

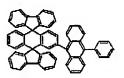
Chemical Compound 103



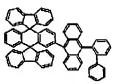
Chemical Compound 105



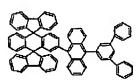
Chemical Compound 107



Chemical Compound 109



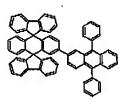
Chemical Compound 111



Chemical Compound 113



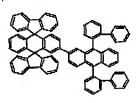
10/099,781 March 14, 2002 0



Chemical Compound 116



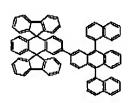
Chemical Compound 117



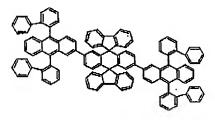
Chemical Compound 118



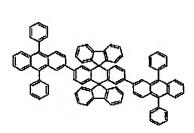
Chemical Compound 119



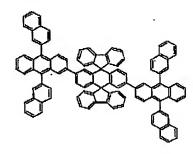
Chemical Compound 120



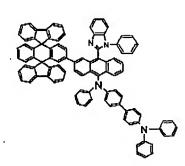
Chemical Compound 121



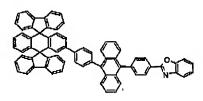
Chemical Compound 122



10/099,781 March 14, 2002 \bigcirc

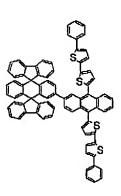


Chemical Compound 125

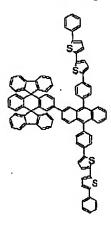


Chemical Compound 126

Chemical Compound 127

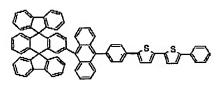


Chemical Compound 128

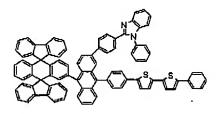


Chemical Compound 129

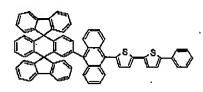
10/099,781 March 14, 2002



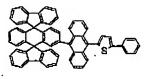
Chemical Compound 131



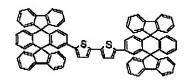
Chemical Compound 132



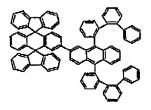
Chemical Compound 133



Chemical Compound 134



Chemical Compound 135



Chemical Compound 136



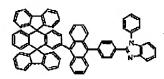
Chemical Compound 137



10/099,781 March 14, 2002

Chemical Compound 200

Chemical Compound 202

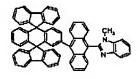


Chemical Compound 204

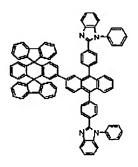


Chemical Compound 201

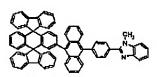
Chemical Compound 203



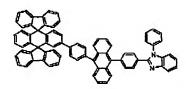
Chemical Compound 205



Chemical Compound 206



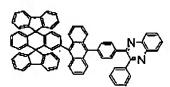
Chemical Compound 208



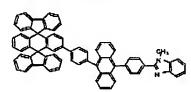
Chemical Compound 210



Chemical Compound 207



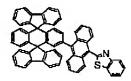
Chemical Compound 209



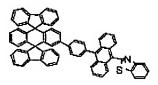
.) 10/099,781 March 14, 2002



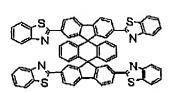
Chemical Compound 212



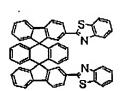
Chemical Compound 214



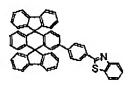
Chemical Compound 216



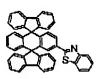
Chemical Compound 218



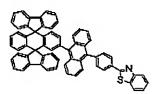
Chemical Compound 220



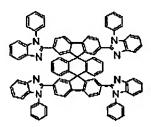
Chemical Compound 213



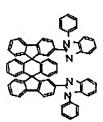
Chemical Compound 215



Chemical Compound 217

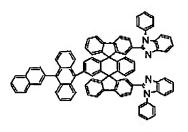


Chemical Compound 219

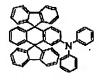


10/099,781 March 14, 2002





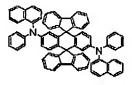
Chemical Compound 222



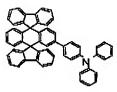
Chemical Compound 300



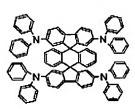
Chemical Compound 301



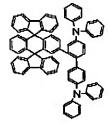
Chemical Compound 302



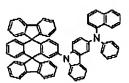
Chemical Compound 303



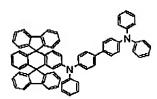
Chemical Compound 304



Chemical Compound 305

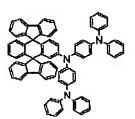


Chemical Compound 306

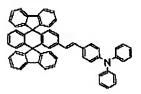


Chemical Compound 307

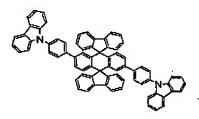
O_{10/099,781}
March 14, 2002



Chemical Compound 308



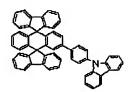
Chemical Compound 400



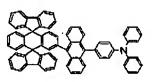
Chemical Compound 402



Chemical Compound 404



Chemical Compound 406



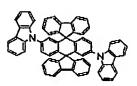
Chemical Compound 401



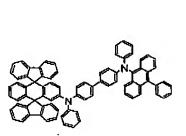
Chemical Compound 403



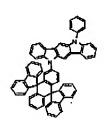
Chemical Compound 405



10/099,781 March 14, 2002



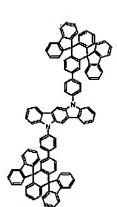
Chemical Compound 408



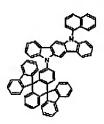
Chemical Compound 410



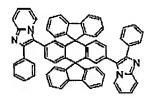
Chemical compound 412



Chemical Compound 409



Chemical Compound 411



Chemical Compound 413.

- 11. (Original) The chemical compound of Claim 1, wherein the compound has a melting point above about 300 °C.
- 12. (Original) The chemical compound of Claim 1, wherein the compound has a band-gap corresponding to visible light emission.
- 13. (Original) The chemical compound of Claim 12, wherein the band-gap for the visible light emission is from about 1.8 eV to about 3.5 eV.
- 14. (Original) The chemical compound of Claim 12, wherein the band-gap corresponds to blue, green or red light emission.
- 15. (Original) The chemical compound of Claim 1, wherein the compound has a hole-transporting property.
 - 16. (Original) The chemical compound of Claim 1, wherein hole mobility in the

10/099,781 March 14, 2002

compound is about 1x10⁻⁷ cm²/Vs or greater.

- 17. (Original) The chemical compound of Claim 1, wherein the compound has an electron-transporting property.
- 18. (Original) The chemical compound of Claim 1, wherein electron mobility in the compound is about 1×10^{-7} cm²/Vs or greater.
- 19. (Original) The chemical compound of Claim 1, wherein the compound has a hole-injecting property.
- 20. (Original) The chemical compound of Claim 1, wherein the compound has the highest occupied molecular orbital (HOMO) level from about -4.0 eV to about -6.0 eV.
- 21. (Original) The chemical compound of Claim 1, wherein the compound has an electron-injecting property.
- 22. (Original) The chemical compound of Claim 1, wherein the compound has the lowest unoccupied molecular orbital (LUMO) level from about -2.5 eV to about -4.0 eV.

23-88. (Canceled)

M	n	1	7
44.	··	1	ı

O10/099,781
March 14, 2002

DISCUSSION OF CLAIM AMENDMENTS

Claims 23-88 have been canceled without prejudice as being non-elected as discussed below. Claims 2, 3, 5 and 6 have been amended to correct typographical errors as set forth above. As such, no new matter has been added by the claim amendments. Entry of the claim amendments is respectfully requested. Upon entry of the amendments, Claims 1-22 are pending in this application.